The Daybook

Vol. 9 Issue 2

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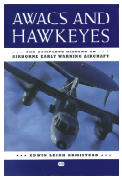

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USS *Monitor* has a turret? That, sir, is a mount. At least that is what the Peanut Gallery believes.

Cover Illustration: The famous American print shop Currier and Ives produced this image of the frigate USS *Cumberland* around 1847. It is one of the best images of the ship ever produced while she was still a frigate (she was later converted to a sloop-of-war.) The title of the art is "U.S. Frigate Cumberland, 54 Guns, The Flagship of the Gulf Squadron, Com. Perry." The print was produced during the Mexican War when *Cumberland* was one of the lead ships. In this issue of *The Daybook*, we look at the creation of the ship that has become the flagship of the Hampton Roads Naval Museum. (Naval Historical Center photo of a lithograph by Currier and Ives.)

HAMPTON ROADS NAVAL MUSEUM
Local History. World Events.

About The Daybook *and the Museum*

The Daybook is an authorized publication of the Hampton Roads Naval Museum (HRNM). Its contents do not necessarily reflect the official view of the U.S. Government, the Department of Defense, the U.S. Navy, or the U.S. Marine Corps and do not imply endorsement thereof. Book reviews are solely the opinion of the reviewer.

The HRNM is operated and funded by Commander, Navy Region, Mid-Atlantic. The museum is dedicated to the study of 225 years of naval history in the Hampton Roads region. It is also responsible for the historic interpretation of the battleship *Wisconsin*.

Call for information on the museum's and *Wisconsin*'s hours of operations. Admission to the museum and *Wisconsin* is free. *The Daybook*'s purpose is to educate and inform readers on historical topics and museum related events. It is written by the staff and volunteers of the museum.

Questions or comments can be directed to the Hampton Roads Naval Museum editor. *The Daybook* can be reached at 757-322-2993, by fax at 757-445-1867, e-mail at gbcalhoun@nsn.cmar.navy.mil, or write *The Daybook*, Hampton Roads Naval Museum, One Waterside Drive, Suite 248, Norfolk, VA 23510-1607. The museum can be found on the World Wide Web at http://www.hrnm.navy.mil.

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Join the Navy… or the Next Best Thing!

The Director's Column

by Becky Poulliot

Okay folks, we are ringing in the New Year the right way. We have two new projects that are well worth your time and money. **As I told you in an earlier** *Daybook*, our museum support organzation, the Hampton Roads Naval Historical Foundation has a new director on board, Rear Admiral Jake Tobin (Ret.). In addition to having more energy than five people, Admiral Tobin brings ideas to completion.

The first project just completed is our very own USS *Wisconsin* book. Mary Mosier, Battleship Operations Manager, thought that a small illustrated paperback would be ideal for ship visitors, both for tour information and as a memento. Enter Oxford Press, a publisher of several historic ship books, and Randy Shoker who writes these books. In a matter of several months Mr. Shoker, with the help of museum staff and volunteers, put together 80 pages of facts, stories and photos. I promise that you will love this book! It truly is one of our best efforts.

Since its arrival a few weeks ago, hundreds have been sold. If you are interested in purchasing *USS Wisconsin BB-64*, call the Foundation Gift Shop at (757) 423-8118 or visit the Nauticus Banana Pier Gift Shop.

The Foundation's second endeavor is one long in the making. Since 1983, our Foundation has devoted its mission to supporting the Hampton Roads Naval Museum's interpretive efforts. Actual operation costs are borne by the U.S. Navy. Federal cost-cutting is becoming more acute, and it is imperative that we position ourselves as a thriving institution with many supporters, both public and private individuals and organizations.

Therefore, with this issue, the Hampton Roads Naval Historical Foundation is officially kicking off a membership program. You will find a brochure included in this issue that describes the benefits of becoming a member of the Foundation. In addition to supporting the Hampton Roads Naval Museum, you will receive some great benefits like invitations to special events, gift shop discounts, and at higher levels a free family membership to Nauticus, the National Maritime Center. So, join up, and if you are one of the first 20 Plankowners, you'll receive a free copy of **USS *Wisconsin* BB-64.**

Happy New Year, and I hope to see you at our member's first reception!

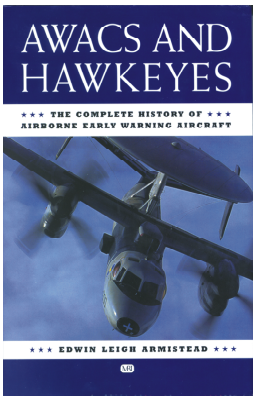
Becky

Museum Announces Its 2004 Speakers

The Hampton Roads Naval Museum is pleased to announce new five new speakers for its Luncheon Lecture Series and Dunderfunk speakers programs. Call 757-322-3109 for more information and to make a reservation for any of our programs.

Luncheon Lectures

March 13-Maritime artist Joe Hinds and a panel of naval historians will discuss naval ship development. This discussion is in conjuction with an exhibit showcasing Mr. Hinds' artwork.

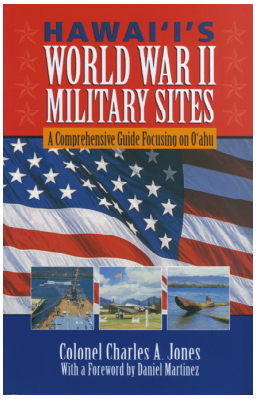


August 26-Lieutenant Commander Leigh Armistead, author of *AWACS and Hawkeyes*, will discuss the history of the early warning aircraft. (See review on page 11.)

October 14-Author David Poyer will talk about his latest Civil War novel entitled *Country of Our Own*.

Dunderfunk

February 26-William & Mary history professor Kris Lane will speak about the U.S. Navy's campaign in the 1800s to eliminate piracy. (Note: This is the make-up date for the 2003 talk)



July 29-Writer Colonel Charles Jones will talk about his latest published work entitled *Hawaii's World War II Military Sites*, which is a guide to these historic places on O'ahu.

Wisconsin Visitor Information

General Information
757-322-2987
www.hrnm.navy.mil

Volunteer Opportunities
757-322-3106
tdandes@nsn.cmar.navy.mil

Honor and Ceremonies
757-322-2988
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757-322-2993 or 322-2984
gbcalhoun@nsn.cmar.navy.mil

Nauticus' *Wisconsin* Exhibits
757-664-1000
www.nauticus.org
jenny.burge@norfolk.gov

***Wisconsin* Project Partners**
Hampton Roads Naval Historical Foundation
www.hrnhf.org (new address!)

USS *Wisconsin* Association
www.usswisconsin.org

Battleship *Wisconsin* Foundation
www.battleshipwisconsin.org

Rescuing Pieces of *Cumberland* and *Florida*

by Joe Judge

The museum recently completed the first phase of one its longest running projects, the conservation of items looted from the Civil War shipwrecks USS *Cumberland* and CSS *Florida*. The work was accomplished by the Warren Lasch Conservation Center in Charleston, South Carolina, home to the famous early submarine CSS *Hunley*.

The shipwrecks of *Cumberland* and *Florida* are located in the James River near Newport News, Virginia. In the 1980s several individuals began systematic looting of these shipwrecks. The looters were hard working, but also less than intelligent about their crime. In a failed instance of "hiding in plain sight" they sold the artifacts in well-known antique shops with bright red and white labels stating that they had been dredged from shipwrecks. In some cases, copper from the ships was melted down to make souvenir belt buckles. Observant citizens, especially from the Confederate Naval Historical Society, sounded the alarm.

Fuse plug. Artillery fuses like this one were used to explode a projectile at a certain time and place. This plug was fitted into the shell to seal the fuse proper, which was driven in paper and burned 10, 14, or 20 seconds to the inch. Most U.S. Navy fuse plugs were stamped, this one is not, which indicates that it is probably Confederate in origin. (Photo by the Warren Lasch Conservation Center)

The U.S. Department of Justice and Naval Investigative Service successfully prosecuted the looters under the Archaeological Resources Protection Act.

This law protects irreplaceable historical resources on land and under the water from being pillaged by the profit-minded. The convicted looters were required to turn over all artifacts to the U.S. Navy. The Director of Naval History appointed the Hampton Roads Naval Museum as the sea service's repository for this collection.

Florida and *Cumberland* are each important ships in the history of the United States Navy. USS *Cumberland* was a full ship-rigged sailing sloop built at the Boston Navy Yard and launched in 1842 (see main article.) Later, *Cumberland's* spar deck and quarter galleys were removed, making her a magnificent sloop-of-war and a fast sailer. *Cumberland* had further refinements in 1860 and 1862, leaving her with 22 9-inch Dahlgren guns, one 10-inch pivot gun, and a rifled 70-pound pivot gun, her most formidable weapon, on the stern. After 1856, the ship was no longer a frigate but a sloop-of-war. During the Civil War, *Cumberland* was assigned to the North Atlantic Blockading Squadron stationed in Hampton Roads. It was there the ironclad CSS *Virginia* found her and sank her with colors flying in March 1862.

CSS *Florida* was the first of the foreign-built ships purchased to raid Union merchant shipping during the Civil War. *Florida*, built in England, was a three-masted, bark-rigged, wooden-hulled vessel. *Florida* also came equipped with two steam engines. For armament she carried six 6-inch Blakely rifles, two 7-inch Blakely rifles on pivots fore and aft, and one 12-pound howitzer.

Literate sailors could purchase writing kits that included pens, paper, a supply of ink and ink wells like this one. This "umbrella" style inkwell is one of several examples in the collection. (Photo by the Warren Lasch Conservation Center)

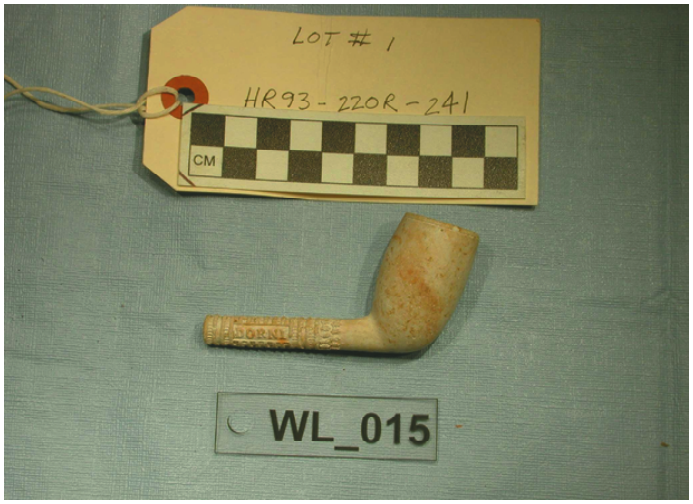
Florida left England on March 22, 1862. In 1863 *Florida* began its mission of economic warfare. The ship called at neutral ports, eluding warships and taking many prizes. While in Brazil in 1864 *Florida* was rammed by USS *Wachusett*. *Florida*, with minimal crew and unloaded guns, surrendered. Brazil strongly protested the violation of her rights as a neutral power.

While anchored off Newport News, *Florida* was rammed by a troop ferry during rough weather on the night of November 19, 1864. When an auxiliary pump failed, the ship took on more water, eventually sinking. An official inquiry blamed the sinking on the failed pump, but circumstantial evidence has led some historians to conclude that *Florida* was deliberately destroyed to remove a diplomatic embarrassment. Whether by accident or design, *Florida*'s career ended on the muddy bottom of the James River, close by the wreck of the *Cumberland*.

Artifacts in this collection were removed from the shipwreck sites without benefit of any conservation. In every case they were removed from the water and immediately dried out. Consequently their condition was much worse than items normally found in a

Artifacts continued on page 5

U.S. Navy Pepper bottle. Five examples of these bottles, labelled for either "MUSTARD" or "PEPPER" are in the collection. (Photo by the Warren Lasch Conservation Center)



Pipe. Nine different pipes in the collection point to the widespread use of tobacco in the Civil War. This pipe carries the stamp "DORNI." Peter Dorni was a prominent pipemaker in northern France around 1850. Monsieur Dorni's pipes were so popular that they were copied in Holland. These pipes have been found across the United States. (Photo by the Warren Lasch Conservation Center)

Artifacts continued from page 4

museum collection. In another complication, the looters in many instances covered artifacts with a thick layer of polyurethane.

The museum recognized the importance of these artifacts, which complimented items from the *Cumberland* and *Florida* recovered during legitimate archaeological work and already in the museum collection. The first task facing the staff was the identification and evaluation of these important historic resources. The museum successfully applied for a grant from the Legacy Resource Management Program, a program funded by Congress to help manage and preserve Department of Defense cultural resources. In 1995 this grant produced an inventory and conservation needs assessment.

The next problem was money. Conservation is technical, painstaking work and the price tag can be compared to plumbing or good legal counsel. Once again the staff investigated the Navy's resources and responsibilities under the management of cultural resources, and applied for funding to treat the artifacts. Various funding reviewers were forced to admit the need for action, and another award was made.

At this point we received invaluable assistance from our colleagues at the Naval Historical Center's (NHC) Underwater Archaeology Branch in Washington. Dr. Bob Neyland and Barbara Voulgaris of the NHC monitor several standing contracts with conservators, and offered to facilitate the award of the contract. It was through their good offices that the museum was able to secure the services of the Warren Lasch Conservation Center in Charleston, South Carolina.

The Lasch Center is home to the submersible *Hunley*, the first submarine to sink a warship during the Civil War. On 17 February 1864, the Confederate submarine made a daring late night attack on USS *Housatonic*, a sloop-of-war with 16 guns, in Charleston Harbor. *H.L. Hunley* rammed *Housatonic* with a spar torpedo packed with explosive powder and attached to a long pole on its bow. The resulting explosion that sent *Housatonic* with five crew members to the bottom of Charleston Harbor also sank *Hunley* with its crew of eight.

In August 2000, archaeological investigation and excavation culminated with the resurrection of *Hunley* from its watery grave. After an on-site investigation was complete, harnesses were slipped underneath the sub. After the last harness had been secured, a crane hoisted the submarine from the mire of the harbor. The submarine was secured inside the Warren Lasch Conservation Center in a specially designed tank of freshwater to begin conservation. The Lasch Center is one of the most advanced conservation facilities in the world.

The senior conservator on the *Hunley* project is Paul Mardikian, from the Sorbonne University Conservation Program in Paris. He and his colleagues Philippe de Martin de Vivies and Michael Scafuri met museum staff members at the lab. The group set about to inventory and pack the artifacts, a process that might be likened to a meeting of a U.N. weapons inspection team, moving day at Tiffany's and an episode of "Fear Factor."

The Center treated the artifacts over the course of several months between 2001 and 2003. Prominent among the artifacts treated were glass and ceramic items, including inkwells and pieces of china. Also treated in this first batch were several examples of clay pipes. Shipboard items addressed by the Lasch staff include sheaves, spikes, washers, blocks and screws. These delicate items were treated with a sophisticated mixture of modern chemical treatments and old-fashioned tender loving care. Cleaning, hot water desalinization and controlled air-drying were used to stabilize the artifacts. In several cases, items that were in several pieces were joined back together. Unsightly and damaging markings by the looters were removed.

About 50 more artifacts are in the final stages of treatment at Charleston, and another batch from this badly damaged collection is being addressed by the Naval Historical Center for future action.

A Classic American Warship

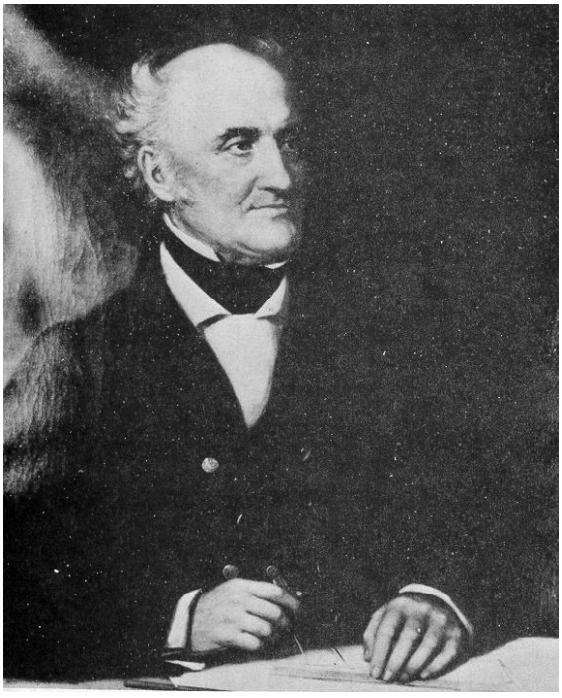
Twenty-five years in the making, the Navy launches the 1st class frigate *Cumberland*

by Gordon Calhoun

The third most famous ship in the Battle of Hampton Roads, behind USS *Monitor* and CSS *Virginia*, is the sloop-of-war USS *Cumberland*. Ever since CSS *Virginia* rammed and sank *Cumberland* on March 8, 1862, the grand wooden sailing ship literally has gone down in history as the symbolic poster child of obsolete unarmored, sailing warships. The attack by CSS *Virginia* is usually where the story on *Cumberland* begins and ends. The ship's career is summed up with a phrase like "she fought gallantly" and that is it. Never mind the fact that ship had a 45-year history and was designed by one of the world's brilliant naval architects who put just as much thought into how the ship looked as how well it would function. The old ship just happened to be in the wrong place at the wrong time, or so the current interpretation goes.

This is how most of us know and remember USS Cumberland*: an obsolete, wooden sail ship sinking at the hands of the technologically superior Confederate ironclad CSS* Virginia *on March 8, 1862. The public's memory of the ship rarely goes, unfortunately, beyond this one event and discards the ship's previous forty-five years. (Naval Historical Center photo of an 1862 Currier and Ives lithograph)*

There are historical tomes, some good and some not so good, written about *Monitor* and *Virginia*. We know how the ships were constructed, who designed them, who operated them, their strengths and weakness, and even what happened to the two ships after they were lost. But nothing of the kind has been produced on *Cumberland*, probably because we have become obsessed with the study of the "first battle of armored warships" and have tightly narrowed our focus on just those two ships. The ship that went down on March 8 is both a ship worth appreciating on a public level of historical study and deeper interpretation on an academic level.



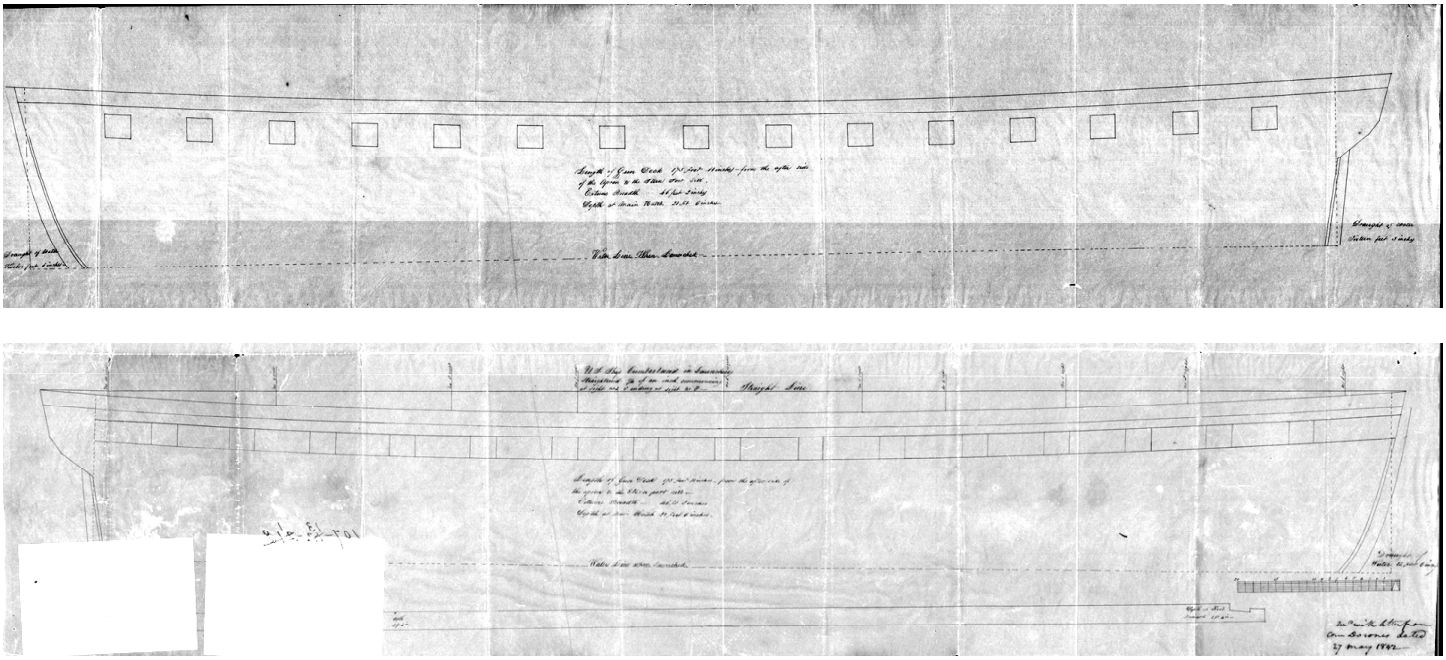
One of America's premier naval architects, William Doughty designed several different types of warships for the U.S. Navy, including USS Cumberland. *(Naval Historical Center photo)*

Cumberland, like most American warships, was born in the pages of a Congressional act. Riding a major upswing of popular support after the War of 1812, the Navy received authorization to begin a long-term program to increase the size of the fleet. Called the "Act for the Gradual Increase in the Navy," the program emphasized the need of large, "blue water" warships, similar to what the European navies had been building for many years. The act specifically authorized the Navy to build six ships-of-the-line and nine frigates.

Very shortly after Congress officially authorized the program, William Doughty, one of the Navy's senior ship architects and designer of several classes of vessels, began to design *Cumberland*. She was originally designed to be a "1st class frigate" and rated as a 44-gun warship. She was to be just one ship in a new class of 44-gun frigates that included *Columbia*, *St. Lawrence*, *Brandywine*, *Potomac*, *Santee*, *Raritan*, and *Savannah*.

Naval historian Howard Chapelle noted that Doughty's design borrowed heavily from the earlier, yet highly successful American frigate designs of the late 18th and

Cumberland *continued on page 7*



Shown above are the Boston Navy Yard's final drafts of Cumberland*'s hull as seen at the gun deck level Like many brilliant people, Doughty was never completely happy with his design of the* Potomac/Raritan*-class frigates (*Cumberland *was the fourth in the class) even after he had worked on the design for years. He instructed that several changes be made, mostly cosmetic in nature, even after several of the frigates,* Cumberland *included, had already had their keel laid down. (National Archives)*

Cumberland *continued from page 6*

early 19th century. Chapelle commented that with this new class of ships, Doughty combined the revolutionary "double-banked" concept (two decks of guns as opposed to the traditional European frigate doctrine that called for only one deck of guns) first used on frigates such as *Constitution* and *Chesapeake* with newer features such as sharper bow lines and less deck sheer, first used in frigates he designed during the War of 1812. The ships were to be the exact same length, 175 feet, as the old frigates. The new class was given a slightly wider beam (45 feet vs. 44 ½ feet) and the spar deck was designed in such a way that it could be fully armed and not left as empty space as was the case in the older frigates.

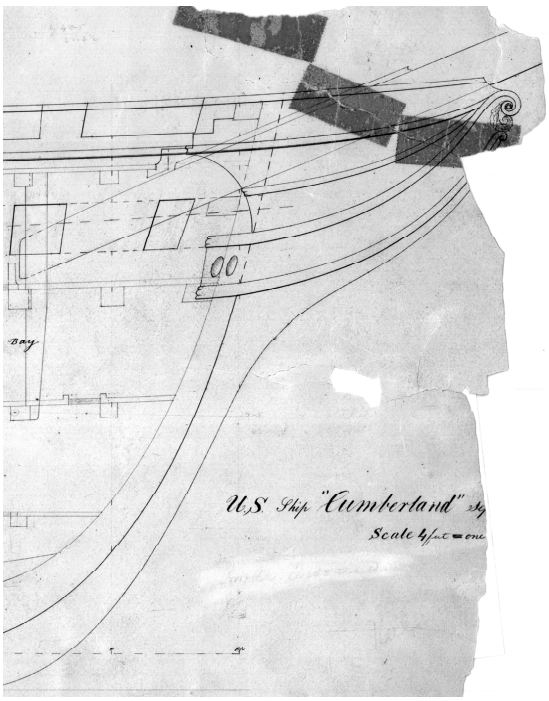
Workers at the Boston Navy Yard began official construction of *Cumberland* on October 29, 1825. Shortly after they had begun assembling the wood, Boston Navy Yard received instructions from Doughty asking them to make a few changes. Despite having worked on the design off and on for eight years, Doughty was not entirely happy with it. He had second thoughts about how the ship looked as well as how it functioned and decided to make several changes to *Cumberland* and her sister ships.

The first major change was the number of guns *Cumberland* would carry. Though rated as a "44-gun frigate," Doughty decided to take advantage of the new spar deck design and proposed that *Cumberland* carry 54 guns instead of the traditional 44.

The second was a series of changes to the hull, mostly cosmetic in nature. Up through the mid-19th century, sailing ships had a square fantail. When designing the new post-war frigates, Doughty originally had planned to stick to this tradition. He changed his mind after viewing new British ships that used a rounded fantail, which used "knuckles," or sharp angles in the frame, and had the rudder tucked farther underneath the fantail. Doughty decided in the early 1820s to incorporate the feature into all of his new frigates, making them the first American ships to use the design concept.

Other cosmetic changes included straight rails at the bow that were closed in instead of upper headrails that used a fancy S-shaped curved rail. Lastly, Doughty flattened the sheer, or the curve in the upper deck, even further than originally designed, to the point that the ship's upper deck looked almost completely straight. The end result was a more modern looking design that would be found frequently in steam-powered ships built in the middle to late 19th century. Dougthy's design was more refined and less complex than the bulky boxes that typified older warships, particularly ships-of-the-line. Some modern day observers, however,

Cumberland *continued on page 8*

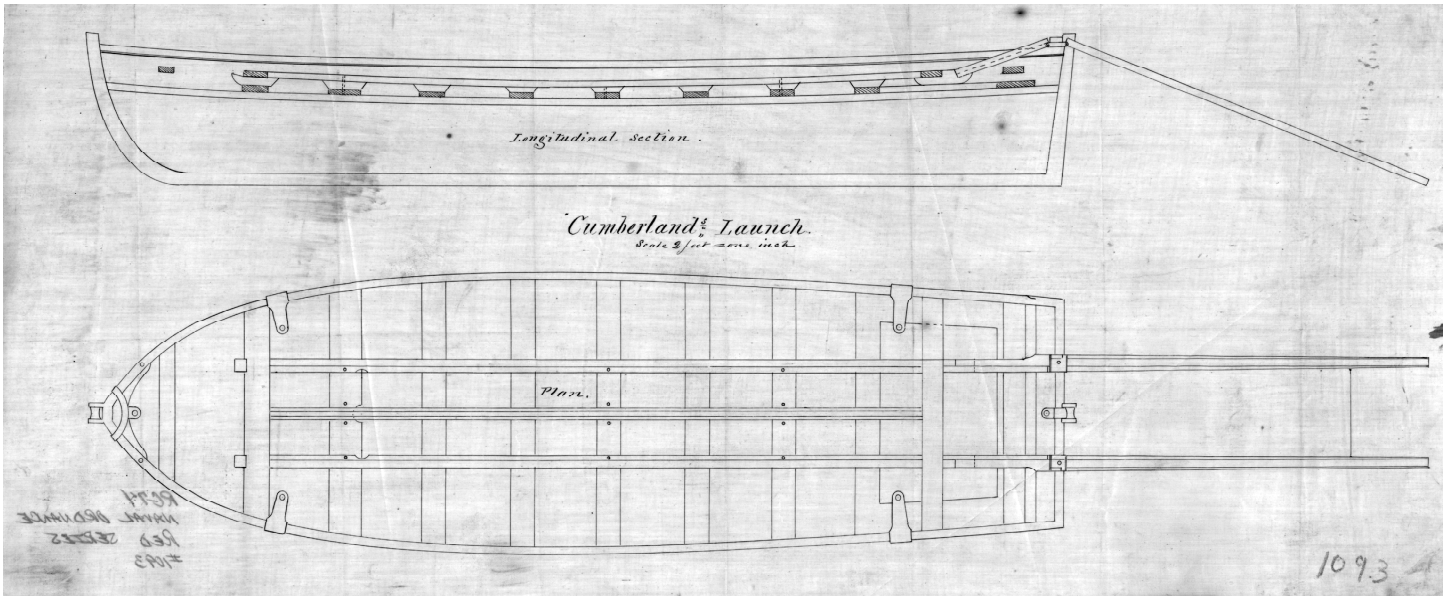


One of the changes Doughty dictated at the last moment was a change in the head rails. Doughty wanted a more "modern" look to the class. The head, shown here in an 1856 plan after Cumberland *was converted to a sloop-of-war, was remarkably simple compared to ships-of-the-line and older frigate designs. (National Archives)*

Cumberland ***continued from page 7***

have expressed their displeasure with the new look that *Cumberland* personified and longed for the day of curved sheers and fancy bow rails.

Doughty's vacillation on these changes caused major delays in construction at other private contractors would demand large amounts of money in a short amount of time. This decision not to use private shipbuilding companies, however, seems to have created further delays in construction. The Government yards were given more the order was given to halt work on the ship, the Yard produced what initially reads like an upbeat and positive report on the ship. *Cumberland*'s hull was "sound and good," the main mast was a little more than half done, the gun carriages had been completed,



When the Secretary of the Navy James Paulding ordered the Boston Navy Yard to halt construction on Cumberland *in 1838, a few of the frigate's small boats, such as this launch, were finished,. Little to no work, however, had begun on bigger, more critical items such as the masts, sails, and officer's quarters. (National Archives)*

yards as many of *Cumberland*'s sister ships were already in advance stages of construction. It did not affect *Cumberland*, however, as workers had only begun to work on the frame when the memo arrived.

Money, however, did slow up construction. Work on all of the frigates proceeded at a painfully slow rate due to a serious flaw in Congressional ship construction policy. While Congress authorized the massive ship building program, it did not provide adequate money to complete the ships in a timely fashion. As large Federal deficit spending in peacetime was not considered sound financial policy, even treasonous to some legislators, during this period, many of the warships took several years, even decades to complete. Some remained on the stocks as late as 1870s and were never even launched.

In an attempt to cope with the policy, the Navy purposely decided to build the ships only at the Government-owned Navy yards rather that contract the ships out to private yards. The Navy reasoned that it would be easier to control the flow of appropriations to Government yards, as contracts than they could handle, which created huge backlogs.

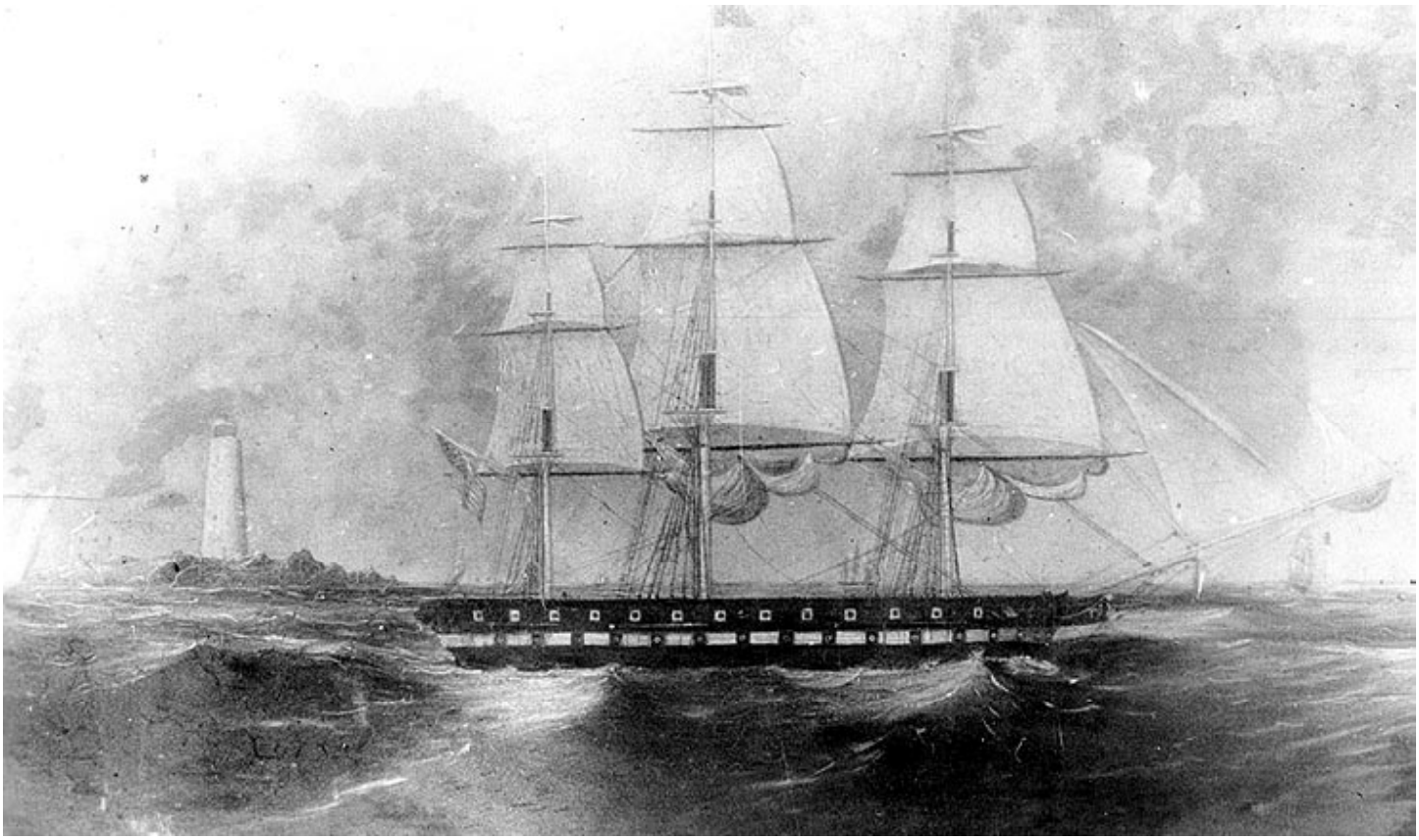
The situation at the Boston Navy Yard is an excellent example of the growing pains the Navy was experiencing. When the hull of *Cumberland* was first laid down, the Yard also was in charge of building the ship-of-the-line *Virginia* (never finished), the sloop *Boston*, the schooners *Dolphin* and *Boxer*, the frigate *Marion*, and, three other warships. This was on top of having to maintain other ships such as *United States*, *Constellation*, and the highly respected ship-of-the-line *Ohio*. If that was not enough of a strain on human resources, the Boston Navy Yard was one of two Government facilities, Gosport Navy Yard being the second, slated to receive a stone dry-dock. After an astonishing thirteen years of work on *Cumberland*, Secretary of the Navy James Paulding ordered that "work be suspended" on the ship to allow resources to be spent on other ships and infrastructure at the yard.

When the halt order arrived, *Cumberland* was in relatively good condition despite being laid up on the stocks for so long. In October 1838, shortly after four of the scheduled 32 32-pounder long guns and 18 of 22 42-pounder carronades had been forged, and most of the small boats had been finished.

Nonetheless, there was much work to be completed including the secondary masts. The hull had yet to be coppered, none of the sails had been sewn, and none of the anchors or rigging had been manufactured. Many interior spaces such as the shot lockers and officers' quarters had yet to be finished.

At the previous rate of construction, the Yard estimated that if allowed to continue work on the frigate, it would take about 20 weeks to finish the hull. However, the Yard also reported that if the facility devoted all of its resources to the ship, it could have not only the hull, but also the ship finished and ready for sea in the same amount of time. The Board of Navy Commissioners, a group of senior naval officers who advised the Department, produced a similar, cautiously optimistic opinion on the ship's construction. It reported to the Secretary that while *Cumberland* was nowhere near ready for sea, the hull of the ship was in

Cumberland ***continued on page 9***



After twenty-five years of design, debate, and construction, the Boston Navy Yard finally launched Cumberland *on March 24, 1842. This painting by an unknown artist is one of the early images of the ship and a very good profile view of the vessel. It depicts the frigate sailing out of Boston Harbor and past historic Boston Light and Great Brewster Island shortly after her commissioning. The Navy home ported her in Boston and made her the flagship of the Mediterranean Squadron as her first assignment. (Naval Historical Center photo)*

Cumberland *continued from page 8*

good enough shape that it could be finished quickly if the proper resources were devoted to the project.

The reports remained the same for three years. Every three months, the Yard's constructors reported the same thing: the hull was in good shape, but there were no sails, not enough guns, and no workers were employed on the ship. Just when it seemed liked the Navy had given up on the ship, *Cumberland* was given new life with a directive from the new Secretary of the Navy and Virginia-native Able Parker Upshur.

The new secretary sought to dramatically increase the size of the fleet as he strongly believed that the United States was falling far behind its European rivals France and Great Britain in both quantity and quality of warships. He successfully argued before Congress that the U.S. Navy complete many of the ships currently under construction in the short term and look at new steam powered warships and related technologies in the long term. Foreign events no doubt helped move funding through, as there was a real possibility of a third war with the British.

"the United States Frigate Cumberland was launched in most beautiful style yesterday morning, at 20 minutes past 11'o clock, from the Charlestown [Boston] Navy Yard...She is a good specimen of naval architecture. May she render her country efficient service in case of need."

-[Boston] Daily Atlas
March 25, 1842

With new funding in hand, Upshur instructed Commodore John Downek, commandant of the Boston Navy Yard in the early 1840s, to "prepare frigate Cumberland for launching" in December 1841. Unlike previous construction on the ship that was done in piecemeal fashion, Downek and his successor Commodore John Downes picked up the pace on the frigate's construction and devoted much of the Yard's resources to completing her. In just twelve weeks, *Cumberland*'s hull, masts, and interior spaces were finished and the ship was ready to be launched.

The final dimensions of the frigate were close to Doughty's original plan, but the constructors, like many shipbuilders in

Cumberland *continued on page 14*

Book Reviews

USS Constellation: From Frigate to Sloop of War

by Geoffrey M. Footner
Reviewed by Joe Mosier

In college, this reviewer was treated to a lengthy discussion by a literature instructor "proving" that *The Iliad* was not written by Homer but rather by another blind Greek poet of the same name. The controversy over the former USS *Constellation* is to me a reminder of those younger days of earnest argumentation. In 1955, the Navy had donated the old sailing warship to a preservation group in Baltimore. In the transfer papers, it was identified as the frigate originally launched at Fells Point in 1797. This made her the oldest surviving U.S. Navy warship, one year older than the still-commissioned USS *Constitution*.

Unfortunately for fundraising efforts, naval architectural historian Howard Chapelle latched on to *Constellation* as a kind of poster child for his theory of a duplicitous Navy Department hoodwinking a credulous and inattentive Congress. By Chapelle's reasoning the Navy of the mid-1800s would request funds for the repair of existing vessels and then use that money to build new ones in their place. The *Constellation* at Baltimore was **not** the 1797 frigate but rather a completely different sloop of war built at Gosport Navy Yard in 1853. Battle was joined between Chapelle's supporters and surrogates of the Baltimore group over the questions of the age and rate of the ship. While cries of forgery and fakery drowned out the appeals for preservation funds, the arguments got personal and often nasty.

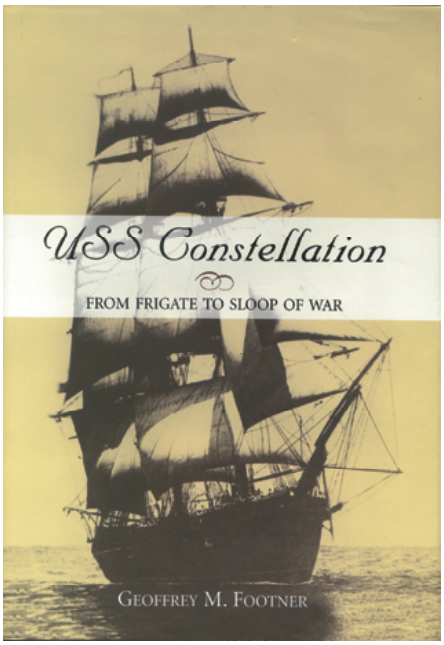
Geoffrey M. Footner. *USS Constellation: From Frigate to Sloop of War*. Annapolis: Naval Institute Press, 2002. 392 pages. ISBN 1-55575-0248-6. $39.95.

Latest into the fray is Geoffrey M. Footner, former WWII naval officer, shipping industry executive, vintner, sailor and award-wining writer. Footner has meticulously researched the ship design technology and administrative procedures of the early Navy. He offers compelling evidence that *Constellation* was rebuilt not merely in 1853, but had been reconstructed from the keel up in 1812, 1829, and 1839. Unlike today's steel hulls, the wooden vessels of the day were frequently subject to this sort of repair to deal with damage caused by the ocean environment. In each case, the *Constellation* coming out of the yard was considered the same as the one going in.

For some reason the rebuild of 1853 is seen differently by Chapelle's successors. Most erudite of them all is Dana Wegner of the U.S. Navy's David Taylor Research Center. Wegner was lead author of a 1991 official technical report *Fouled Anchors: The Constellation Question Answered*. In it and subsequent articles, an effort is made to say definitively that there is no connection between the 1797 frigate and the 1853 sloop-of-war other than propinquity, one was destroyed and the other built within a few hundred yards of the other. For those who have time on their hands and wish to follow Wegner's arguments in detail, they are available at the David Taylor Research Center website: www.dt.navy.mil/cnsm/review.html

If you are like this reviewer, the whole controversy begins to mirror the Homoiousian and Arian conflict of the Fourth-Century Church over whether Christ *was* God or merely *like* God. Why then would any reader want to bother with Footner's book?

Simply put, because it is a competently written, thoroughly researched and richly detailed history of the *Constellation[s]*. Local readers will especially enjoy Chapter Four, "The Lucky Constellation" which covers the blockade of the frigate in Norfolk's harbor during the War of 1812. The British made a thrust to seize the ship which was repulsed at the Battle of Craney Island. Also, the disputed rebuild took place at Gosport. Footner comprehensively details the methods of administration and construction at the forerunner of today's Norfolk Navy Yard.

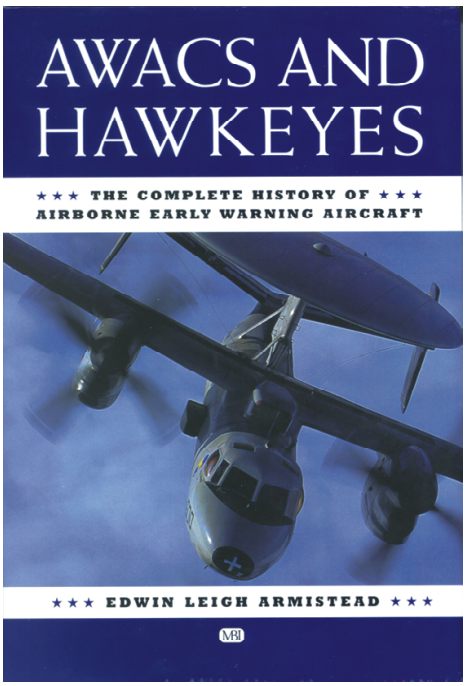


USS Constellation*: From Frigate to Sloop of War* is a robust book. It features 25 illustrations, 16 line drawings and 75 pages of notes. Footner appears to have avoided the charge of poor documentation levied against some of his predecessors in the controversy. You may not agree with the logic of his argument, but there should be no doubt about how he derived it. One failing of the work from a reader's viewpoint is the lack of a glossary. Those of us who do not know a taffrail from a transom may have difficulty following the Footner's detailed recounting of *Constellation*'s rebuilds.

Whether or not the reader is convinced by the author may well depend upon what view the reader held on starting the book. If this is indeed an argument about how many angels can dance on the head of pin, Footner is likely to give an answer with trigonometric exactitude while Wegner might counter, "Pin! What pin? The pin's a forgery!" My suggestion: buy the book for its fine contribution to the history of the ship. The esoterica of the *Constellation* controversy is just an added source of bemusement.

AWACS and Hawkeyes: The Complete History of Airborne Early Warning Aircraft

by Edwin Leigh Armistead
Reviewed by Gordon Calhoun



One of the more under appreciated weapons in the U.S. Military arsenal is its advance early warning (AEW) aircraft. These aircraft have given the United States and its allies a major advantage by providing advance warning of impending threats and better coordination and organization of friendly forces during a battle. Edwin Leigh Armistead has authored a much-needed history of the development of America's AEW programs entitled *AWACS and Hawkeyes: The Complete History of Airborne Early Warning Aircraft.*

The book discusses the beginnings of airborne radar during World War II and its early development at the Massachusetts Institute of Technology and other institutions. It then progresses into the Navy's and Air Force's first attempts to produce an aircraft capable of carrying out the AEW mission such as the PB-1W (a modified B-17 bomber with a large radar) and the odd looking E-1B Willie Fuds. We then learn what it was like to serve on the "Barrier" in the 1950s. This project was an inter-agency attempt to form a continuous network of ground and airborne radar systems to detect a possible Soviet bomber attack on the United States. Armistead interviewed several veterans of the Barrier and the reader gets a good glimpse of what it was like to serve in this most tedious of missions. From there, Armistead takes the reader to hotspots in the Cold War such as Cuba and Viet Nam and the lessons that the AEW community learned for future aircraft.

Edwin Leigh Armistead. *AWACS and Hawkeyes: The Complete History of Early Warning Aircraft.* St. Paul, MN: MBI Publishing Company, 2002. 207 pages. $24.95. ISBN 0-7603-1140-4.

Once Armistead is done with the early operational history of the AEW programs, he discusses the history behind the major platforms used by the Navy and Air Force today. Specifically, he looks at the Navy's E-2 Hawkeye and the Air Force's E-3 Sentry programs and how the two services came about procuring the planes. We also learn about diverse topics such as how individual AEW planes operate and how other nations have been eagerly pursing their own AEW platforms.

The author has an agenda and in history, this is a good thing, as a certain celebrity once said. One of the best ways to use history is to justify a current or a change in policy with historical facts and events. In his book, Armistead uses history to show the success and lessons learned in AEW to demonstrate the effectiveness and progressive nature of the various AEW platforms. Arimstead's enthusiasm for the history of AEW shows. He wants others in the military and the public to appreciate these platforms and implies that we should continue to support and advance these programs.

There are a few issues with the book, mostly editorial in nature. The main editorial issue is the lack of footnotes or other type of documentation. For example, there is a discussion about the failures of AEW during the 1983 U.S. peacekeeping operations in Lebanon and the lessons learned from that operation led to the formation of the Navy's "Strike University." Unless one is a student of that operation, one has to trust that the author is correct as there are no histories or official documents of the operations cited.

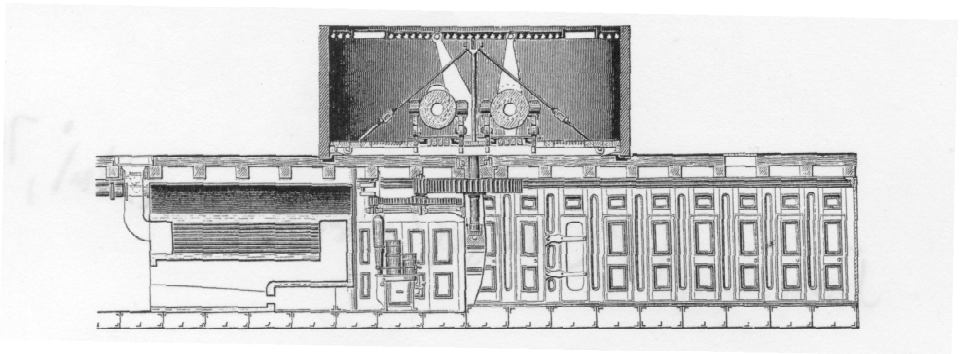
There is no doubt that Armistead did exhaustive research in writing this work. However, documentation is a critically important part of any historical work, especially when one makes observations and opinions based on facts. Readers need to be able to look up the author's supporting documentation to ensure he/she is properly backing up his/her argument. It is also useful for readers who wish to do further reading and research in a similar field.

How important is it? Recently, a history professor at the U.S. Naval Academy was stripped of his tenure and docked $10,000 a year from his salary because he did not properly paraphrase certain sections in his new book. This was despite the fact that this particular work had over 676 footnotes in 399-page book.

The narrative could profit from better organization. That is, Armistead bounces back and forth between AEW platforms of the past and present. The narrative is also technical in nature, but that is hard to avoid when discussing concepts such as passive sensors, Doppler radars, and how JSTAR works and why it is beneficial to our armed forces.

Having said that, Armistead is to be commended for being a trailblazer and bringing the history of AEW to the public. He correctly believes that despite the fact that AEW planes did not carry missiles or guns, the mere presence of an AWACS and Hawkeye in a certain part of the world, means that the United States has decided that it has a vested interest in that region. The author himself is a veteran of E-2C Hawkeyes and his personal knowledge of the programs adds to the historical facts that he has assembled. With this works, the author convinces the reader why AEW platforms are a critical component of our national security and has demonstrated why other nations desperately seek AEW technology on par with the United States.

You Say "Turret," Some Would Say "Mount"



Certain people are adamant that a "mount" is a gun platform that does not have a armored barbette and is not part of the ship's structure. This would be the case with battleship Wisconsin*'s 40mm guns. So, does this mean USS* Monitor *deployed the first mount and not the first turret in 1862? (Drawing from* Battles and Leaders of the Civil War*)*

The quickest way to get corrected while visiting the battleship *Wisconsin* is to refer to the ship's secondary battery of five-inch guns as turrets. The museum's ever dedicated docents will step in faster than hurricane winds and tell you that they are not turrets, but rather the five-inch guns are deployed on mounts. What about the 16-inch guns? Well, they are deployed on turrets of course. Both the five and 16-inch gun batteries

The Museum Sage

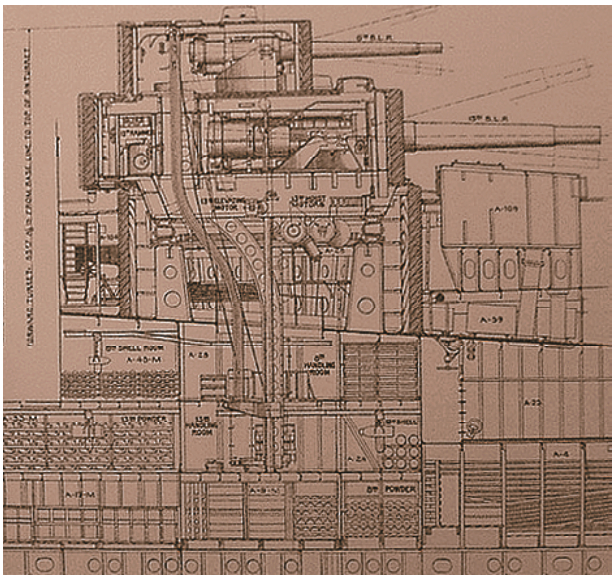
rotate, both batteries elevate, both are armored, both have an armored belt at the base of the battery (called a "barbette,") both have a device that sticks into ship allowing it to rotate (called a "stalk"), and both have magazine rooms directly below the battery. Yet, one uses a mount and the other uses a turret. Confused yet?

If you are, you are not alone as The Sage is equally confused. A starting point on the journey out of this chaos is the excellent website warships1.com. It states that the official definition of a turret is that a "turret is built into the ship, has a stalk that extends well below the weather deck and includes a barbette, while a mount is not part of the ship's structure and does not include a barbette." The site then states that as a rule of thumb, five-inch (127mm) guns and smaller are considered to use mounts and six-inch (152mm) guns and larger use turrets. OK, so much for less confusion.

The problem is further complicated by the fact that each of *Wisconsin*'s five-inch gun batteries has a barbette and has a stalk that extends a few decks down. It should be noted that many do not consider the steel ring on the five-inch battery a barbette. Regardless, the "mount" definition works fine for the smaller anti-aircraft guns like the 40mm, 20mm, and .50 machine-guns installed in 1944 and removed in the 1950s, and even for the ship's point defense guns used during her last commissioned tour. But the definition lands in murky water with the five-inch gun battery.

It gets worse. If one takes the official definition even further, say back to 1862, we have another issue. What about USS *Monitor*? "What about it?" you might ask. Well, is not USS *Monitor* allegedly the first warship to use a turret? That after all is one of the main reason we celebrate the ship. But look at the drawing of *Monitor* at the top of the page, which was taken from John Ericsson's (*Monitor*'s designer) contribution to the *Battles and Leaders of the Civil War* series. *Monitor*'s 11-inch gun battery does not have a barbette nor does the stalk extend very far (granted there is not a lot of room for it go, being that *Monitor* only had two decks to begin with.) Furthermore, the battery is not a part of the ship. It rests on the hull of the ship. Thus going by the modern day definition of a naval gun battery that rotates, our friends at the Mariners' Museum have the world's first mount and not the first turret. Right? Well…

In his *Battle and Leaders* essay,



Shown here is the foward main battery of the locally built battleship Kentucky *(BB-5) as drawn by Newport News Shipbuilding's chief constructor in 1900. This battery, and every one like it on future warships, is obviously a turret. (HRNM photo)*

Ericsson plainly calls the battery a turret, as have many writers and historians who have commented on the Battle of Hampton Roads. Furthermore, the term "turret" predates ironclads by many hundreds of years. Buildings, such as castles, have turrets. Those are those rounds things that stick out from the structure giving the

The Sage marches forward on page 13

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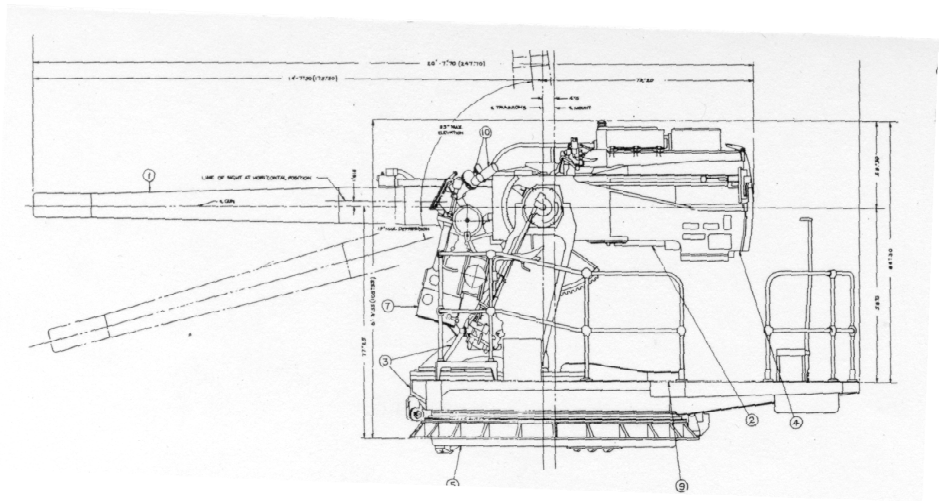
occupant a better view of the world outside.

We could wrap this whole discussion up by saying, "that was then, this is now" and simply say that the definition of a turret for ships has changed. First the Sage would counter with his own cliche: "If it looks like a duck and quacks like a duck..." That is, USS *Monitor*'s turret looks strikingly like the five-inch batteries. But we must go by more than empirical evidence. More to the point, *Monitor* is supposed to be the ancestor of *Wisconsin* (granted *Monitor* is more of a great-aunt than a grandmother, but we will discuss that in a future Sage installment). What we need to do is change the five-inch gun battery term to better define what it really is: a turret.



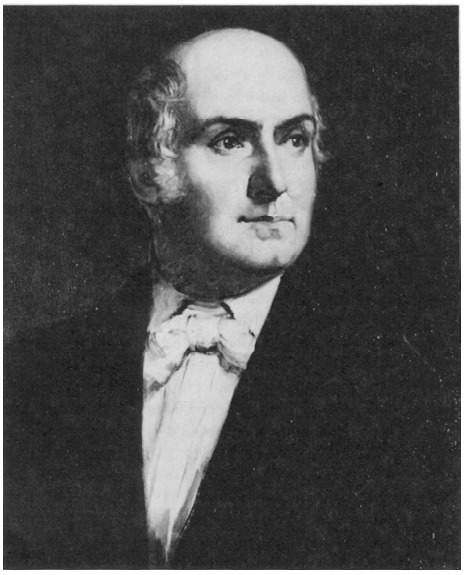
Shown here is the Mk28 dual purpose five-inch gun battery. Wisconsin *carried twenty of these guns in 1944 on ten turrets, er... mounts. (U.S. Navy photo)*

Cumberland ***continued from page 9***

the day, took a few minor liberties with the design. Either due to the constructors' personal construction preferences, the availability of the right type of wood, and general quality control issues, ships that were supposed to be of the same class had the same look at first glance, but had slight differences upon closer inspection.

The result was a final product that was faithful to Doughty's intentions with a few differences in measurements. The hull, for example, was 11 inches longer than designed making the final length 175 feet and 11 inches. The beam was significantly wider, 14 inches wider, than planned, putting the breadth at 46 feet and two inches. She displaced 1,726-tons and constructors determined that the ship would draw 21 feet and six inches of water.

As for weapons, constructors stayed faithful to Doughty's plan to have a fully armed spar deck and heavily arm the vessel. Her initial battery of 54 guns divided among only two calibers: 32 32-pounder long guns (each weighing about 6,000 pounds) and 22 42-pounder carronades (short barreled cannons used for short range action.) A revolution in naval weapons, however, was underway during *Cumberland*'s construction. In the 1830's, the Navy had adopted its first shell guns, which were weapons capable of firing a shell with an explosive charge as opposed to ones made of solid iron. Constructors upgraded the frigate's battery by removing four of the 32-pounder guns from *Cumberland*'s gun deck and replacing them with four new 8-inch shell guns. The end result was a broadside weight of 1,012 pounds, or a 14 percent increase in firepower over frigates used during the War of 1812.



Virginia Eastern Shore native and Richmond lawyer Able Parker Upshur served as the Navy's 13th Secretary of the Navy (1841-1843.) Upshur successfully argued before Congress that the Navy needed more construction and development funds . He allocated a significant amount to the Boston Navy Yard so that it could finish the frigate Cumberland. *(Naval Institute)*

Naval historian Spencer Tucker noted in his excellent history *Arming the Fleet* that their were other issues and discussion over the armament. One discussion concerned the 42-pounder carronades. Some officers liked the short range guns for their superior firepower. But others commented that if the War of 1812 had taught the U.S. Navy anything, longer range guns were the most effective weapon as the enemy had learned to stand clear of the short guns. In the end, the traditionalists won the argument and the 42-pounders stayed for the time being.

Tucker also discovered in his research that the *Raritan*-class frigates used three different types of 32-pounder guns requiring seven different types of power charges. Standardization of weapons, a goal of many of the navies of the world, only went as far as the shot. Tucker noted that "While confusion in the shot locker may have ended, it still existed in the powder magazine."

With the weapons ready and the hull and sails finished and the masts ready to be placed on the hull, *Cumberland* was set for launch. As with many ship launchings past and present, *Cumberland*'s launch day was a community wide event that united everyone behind the flag. On the morning of March 24, 1842, *Cumberland* was sent down the ways into Boston Harbor.

The launch had a brief calming effect on the day's news and commentary as is evident in the *Daily Atlas*, a local Boston newspaper. In the March 25 edition, the *Daily Atlas* published an editorial railing against its political rival the *Boston Post* and its views on how a local riot started and what should be done about the three men who started it. The *Atlas* then published a second editorial criticizing the *Boston Post*'s views on the current Administration, then a third editorial that questioned the *Boston Post*'s general knowledge of politics. A news article followed, reporting that the Governor of New York had issued a warrant for a murder suspect on the run who used a rock to smash another man's

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Cumberland*'s Sisters*

Cumberland was one of eight frigates in a class of "44-gun" warships labeled the *Raritan*-class (sometimes called *Potomac/Raritan*-class) The naming convention for the class was a politically neutral system: rivers. They were among the last all-sail warships to be commissioned into the U.S. Navy. Note that many of the ships had a Hampton Roads connection.

Brandywine-Launched 1825 at Philadelphia Navy Yard. Destroyed by an accidental fire in Norfolk, 1864.

Columbia-Launched 1836 at the Washington Navy Yard. Scuttled at Gosport, 1861.

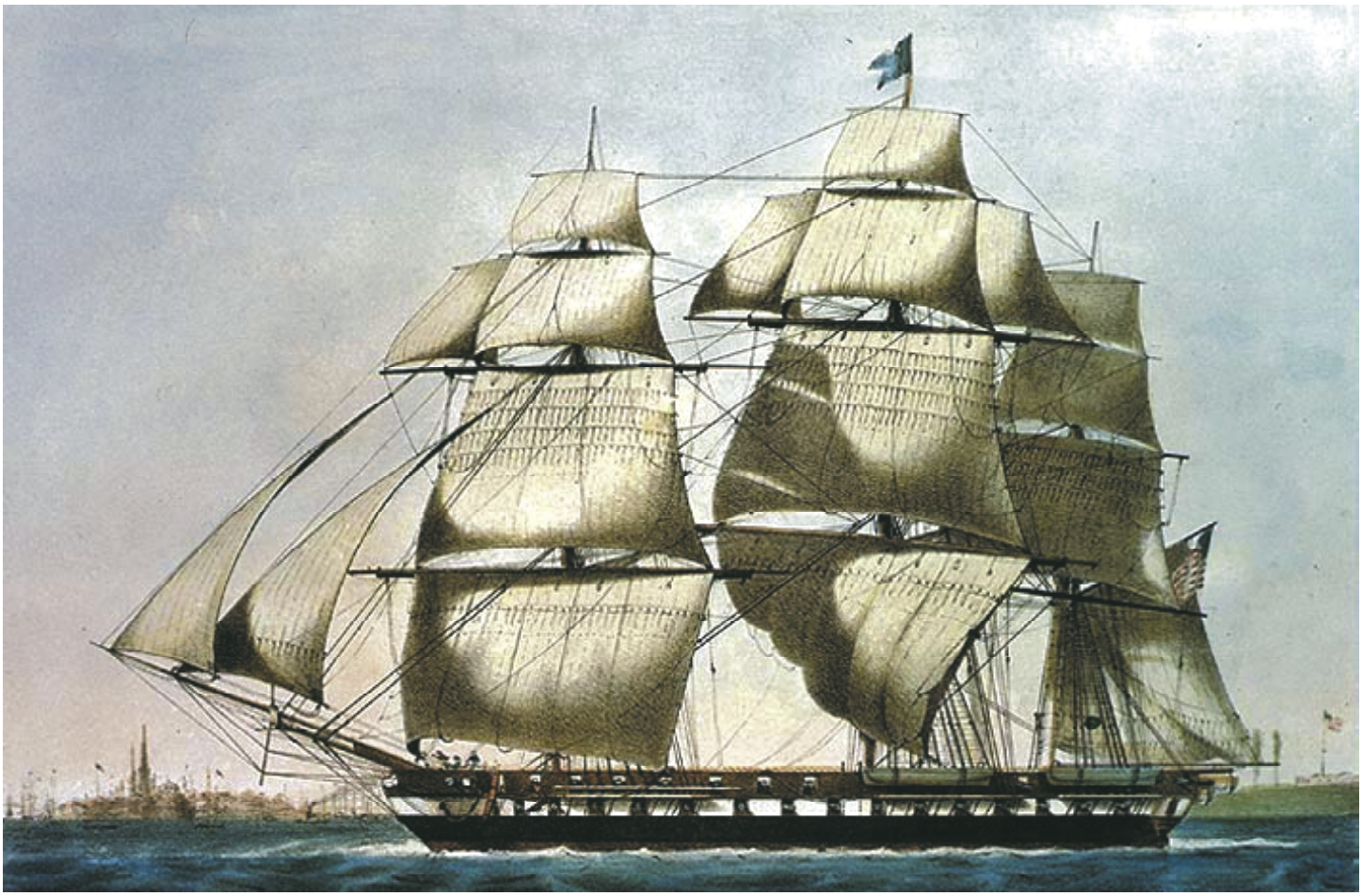
St. Lawrence-Launched 1848 at Gosport Navy Yard. Sold in Norfolk, 1875.

Potomac-Launched 1831 at the Washington Navy Yard. Broken up at the Philadelphia Navy Yard, 1877.

Santee-Launched 1820 at the Portsmouth Navy Yard. Broken up at the Philadelphia Navy Yard, 1912.

Raritan-Launched 1843 at the Philadelphia Navy Yard. Scuttled at Gosport, 1861.

Savannah-Launched 1842 at the New York Navy Yard. Sold in Norfolk, 1883.



This 1847 lithograph by the famed print shop of Currier and Ives is one of the best drawings of Cumberland *in all her patriotic glory as a frigate. This image, like many others, is somewhat deceiving as the ship's main deck looks completely straight. Doughty reduced the sheer (curvature in the hull) significantly, but it still had a slight curve. Notice that the head rails are completely closed and the spar deck (deck above the gun deck) is fully armed. (Naval Historical Center photo of a Currier and Ives lithograph)*

Cumberland ***continued from page 14***

head in, after he robbed and shot the victim. In between all this chaos, the *Daily Atlas* also reported "the frigate Cumberland launched."

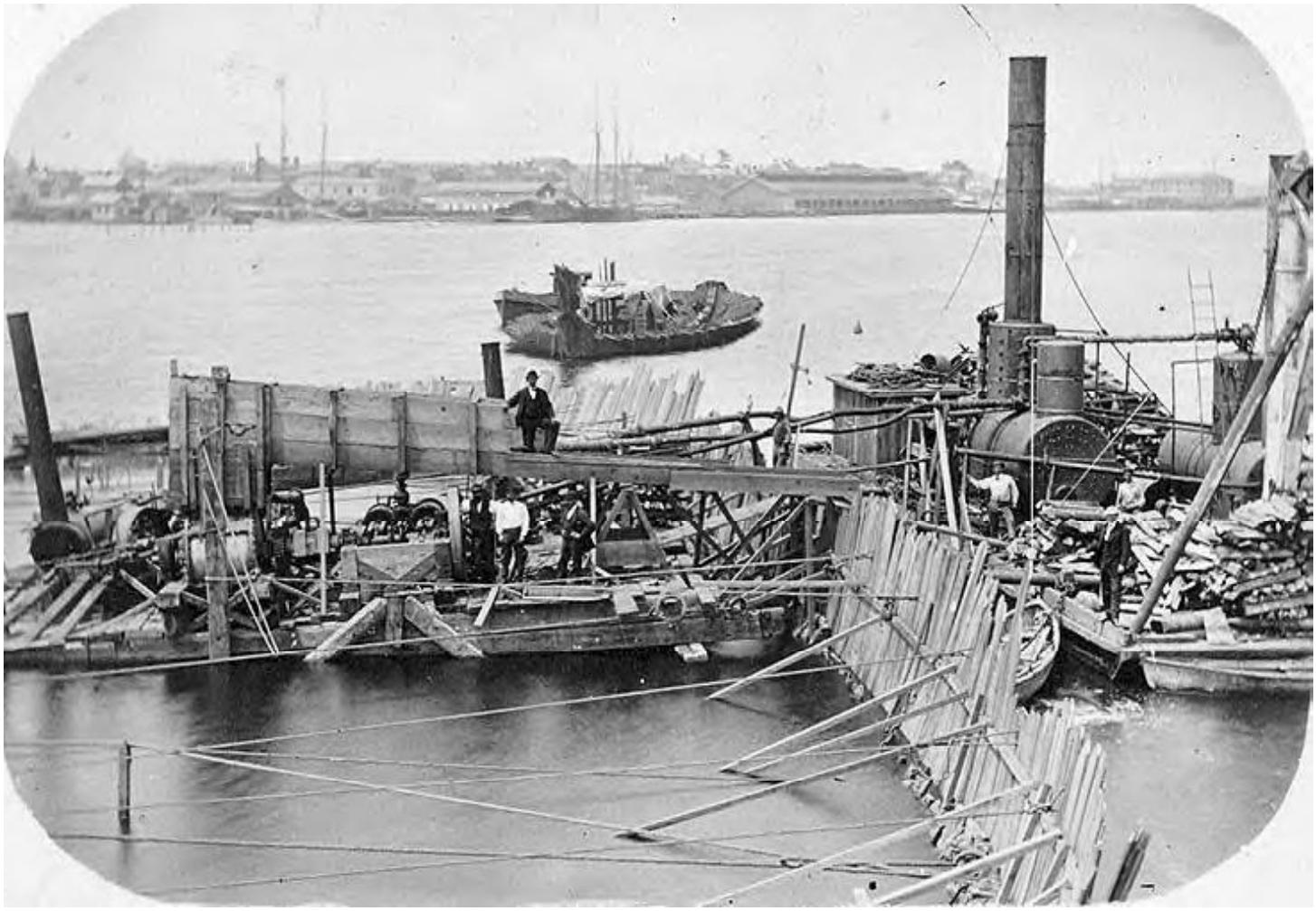
The *Atlas* set aside for a moment its crusader attitude and proudly, and somewhat effeminately, announced "the United States Frigate Cumberland was launched in most beautiful style yesterday morning, at 20 minutes past 11'o clock, from the Charlestown [Boston] Navy Yard in the presence of a vast concourse of spectators assembled in the Yard, at the wharves at the north part of East Boston, and in the numerous boats which were in the harbor adjacent to the Navy Yard. The flotilla of boats presented an exceedingly pretty appearance with their colors flying to the breeze. The weather was fair, and the launch was as splendid as one that has ever come off the yard. The noble ship moved off the inclined plane majestically in the most charming and graceful manner into her native element, where she was welcomed by the hearty cheers of the assembled multitude. She is a good specimen of naval architecture. May she render her country efficient service in case of need."

With the ship launched, there was still work to be done so the ship could join the fleet. The pace, however, slowed to its original speed and commissioning was delayed. As in previous years, the reason is possibly due to the number of ships needing work and the scarcity of employees. When *Cumberland* was launched, the Boston Navy Yard had the ship-of-the line *Franklin*, *Cumberland*'s sister ship *Potomac*, the frigate *Marion*, the sloops *Prebble* and *Consort* all awaiting repairs or refits, in addition to the ships still on the stocks. There was the additional issue of assembling a crew. Not for another eight months was the ship commissioned into the fleet and ready for action.

Finally, on November 20, 1843, twenty-six years after initial conception on Doughty's drafting board and 18 years after her hull was first laid down, *Cumberland* sailed out of Boston Harbor with a crew of 400 under the command of Captian S. L. Breeze. Her first assignment was to be Commodore Joseph Smith's flagship of the Mediterranean Squadron. Commodore Smith would later go on to be a member of the Ironclad Board and help authorize the Navy's first ironclads.

When *Cumberland* was first laid down in Boston, Commodore William Bainbridge had just handed over command of the Boston Navy Yard en route to retirement after several decades of service. When the ship was finally launched, the Navy had begun to accept steam-powered warships into the fleet. Function was starting to conquer form as the age of more modern, but ugly steamers and ironclads were making their way out into the waters. Nonetheless, sail warships still had their place and *Cumberland* would serve her country very efficiently.

Cleaning Up the War



One of the tasks facing Hampton Roads after the Civil War was the clean-up of burned out wreckage and sunken ships in the Elizabeth River. Shown here are crews working on the remnants of the giant ship-of-the-line Pennsylvania*, which was put to the torch during the Navy's 1861 evacuation of the Gosport Navy Yard. (Naval Historical Center photo)*

In Our Next Issue…

- *Cumberland* Sets Sail: The First Cruises

- Book Reviews: *The* Liberty *Incident: The 1967 Israeli Attack on the U.S. Navy Spy Ship by* A. Jay Cristol and *The* Pueblo *Incident: A Spy Ship and the Failure of American Foreign Policy* by Mitchell B. Lerner